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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,075	09/02/2003	Norihiro Kawasaki	242150US90	1512
22850 7590 08/07/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER FRINK, JOHN MOORE	
			ART UNIT	PAPER NUMBER
			2142	
			NOTIFICATION DATE	DELIVERY MODE
			08/07/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/652,075

Applicant(s)

KAWASAKI ET AL.

Examiner

John M. Frink

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :9/2/2003, 7/21/2005, 1/12/2007, 2/12/2007.

## **DETAILED ACTION**

### ***Specification***

1. The title of the invention is objected to as the first word, 'suspended' is misspelled.
2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The Abstract is objected to as it is formatted in a matter suitable for a claim, but not for an Abstract, as is written as a single sentence rather than in paragraph form. Furthermore, the abstract references figure numbers, making it more difficult for one reading said Abstract to understand the enclosed subject matter without additionally inspecting said referenced figures. Said abstract is thus not in clear, narrative form.

### ***Claim Objections***

4. Claims 1, 6 and 10 are objected to because of the following informalities: referring to memory units 'memorizing' data is non-standard English as it personifies said memory table. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 7 and 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, it is not clear what is meant by 'hardware or software resource executable in the second terminal'. For the purposes of this examination, it is assumed that this means compatible formats for the data that will be utilized by terminal 2 are based on information in said recovery table.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1 – 23 are 6 rejected under 35 U.S.C. 102(a) as being anticipated by JP 2002-36005 (JP laid-open 2003-244204) for the reasons given in the provided Japanese Notification of Reason for Refusal.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2142

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1 - 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko Yoshiki, (Japanese publication number 09-154108), hereafter Yoshiki in view of Tomarchio et al. (Code mobility for adaptation of multimedia services in a VHE environment, ISCC'02).

11. Regarding claim 1, Yoshiki shows A suspended service recovery system for receiving a service non-continuously via a network from a service-providing apparatus deployed on the network, comprising:

a first terminal and a second terminal, both of which receive the service from the service-providing apparatus (Abstract);

an analyzer configured to analyze a suspend-state if the service being provided to the first terminal via the network is suspended, and to extract required data in order to recover the suspend-state ([0017,0019,0024]);

a representation unit configured to store the required data extracted by the analyzer as state-description data ([0026-0029,0037]);

a storing unit configured to store the state-description data ([0016,0017,0019]);

a memory unit configured to memorize a recovery table which correlates each item of the state-description data with a data type that can be processed on the second terminal ([0026-0029]);

Art Unit: 2142

a state-description transformer configured to transform the state-description data retrieved from the storing unit to recovery-state data based on the recovery table ([0026-0035]); and

a service-recovering unit configured to recover the suspended service on the second terminal based on the recovery-state data ([0017,0019,0024]).

Yoshiki does not show where the representation unit is configured to convert the required data extracted by the analyzer to state-description data according to a prescribed format.

Tomarchio shows where the representation unit is configured to convert the required data extracted by the analyzer to state-description data according to a prescribed format (Sections 1, 3.2, 3.3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Yoshiki with that of Tomarchio in order to allow for maximum user mobility and compatibility across multiple devices, allowing services to be developed only once independently of the actual user terminal and its capabilities (Tomarchio, Abstract).

12. Regarding claim 2, Yoshiki in view of Tomarchio further show a suspended service recovery method for receiving a service non-continuously via a network from a service-providing apparatus deployed on the network using a first terminal and a second terminal, comprising the steps of:

(1) analyzing a suspend-state if the service being provided to the first terminal via the network is suspended, and extracting required data in order to recover the suspend-state (Yoshiki [0017,0019,0024]);

(2) converting the required data extracted at a step (1) to state-description data according to a prescribed format (Yoshiki [0026-0029,0037]; Tomarchio Sections 1,3.2.,3.3);

(3) storing the state-description data (Yoshiki [0016-0019]);

(4) transforming the retrieved state-description data to recovery-state data based on a recovery table which correlates each item of the state-description data with a data type that can be processed on the second terminal (Yoshiki [0017,0019,0024]; Tomarchio Sections 1,3.2.,3.3);; and

(5) recovering the suspended service on the second terminal based on the recovery-state data (Yoshiki [0017,0019,0024]).

13. Regarding claim 3, Yoshiki in view of Tomarchio further show a terminal for receiving a service non-continuously via a network from a service-providing apparatus deployed on the network, comprising:

an analyzer configured to analyze a suspend-state if a service being provided via the network is suspended, and to extract required data in order to recover the suspend-state (Yoshiki [0017,0019, 0024]); and

a transmitter configured to transmit the required data to the network (Yoshiki [0024-0031]).



14. Regarding claim 4, Yoshiki in view of Tomarchio further show a terminal according to claim 3, further comprising a representation unit to convert the required data extracted by the analyzer to state-description data according to a prescribed format, and wherein the transmitter transmits the state-description data in lieu of the required data to the network (Tomarchio, Sections 1, 3.2, 3.3, Figs. 2, 3 and 4).

15. Regarding claim 5, Yoshiki in view of Tomarchio further show a terminal for receiving a service non-continuously via a network from a service-providing apparatus deployed on the network, comprising a service-recovering unit configured to recover a suspend-state of the service which is suspended by another terminal based on required data retrieved from the network (Yoshiki [0017-0024]).

16. Regarding claim 6, Yoshiki in view of Tomarchio further show a terminal for receiving a service non-continuously via a network from a service-providing apparatus deployed on the network, comprising:

a retriever configured to retrieve state-description data in which required data to recover a suspend-state of a suspended service is converted according to a prescribed format (Tomarchio Sections 1, 3.2, 3.3);

a memory unit configured to memorize a recovery table which correlates each item of the state-description data with a data type that can be processed on another terminal (Yoshiki [0026-0029]);

a state-description transformer configured to transform the retrieved state-description data to a recovery-state data based on the recovery table; and a service-

recovering unit configured to recover the suspended service on the other terminal based on the recovery-state data (Yoshiki [0016-0024,0037]).

17. Regarding claim 7, Yoshiki in view of Tomarchio further show a terminal according to claim 6, further comprising a resource determination unit configured to determine hardware or software resource executable in the other terminal based on the recovery table (Tomarchio Sections 3 and 4).

18. Regarding claim 8, Yoshiki in view of Tomarchio further show a suspended service recovery apparatus for providing a service non-continuously to a first terminal and a second terminal via a network, comprising:

a state-description data retriever configured to retrieve state-description data in which a suspend-state of a suspended service is converted according to a prescribed format (Tomarchio Sections 1, 3.2, 3.3);

a storing unit configured to store the retrieved state-description data (Yoshiki [0016-0019]); and

a state-description data transmitter configured to transmit the state-description data to the second terminal according to a request by the second terminal (Yoshiki [0026-0035]).

19. Regarding claim 9, Yoshiki in view of Tomarchio further show a suspended service recovery apparatus according to claim 8, further comprising a representation unit configured to acquire the suspend-state if the service being provided to the first terminal is suspended, and to convert required data to recover the suspend-state to the

state-description data according to a prescribed format (Tomarchio Sections 3.2 and 3.3; Yoshiki [0016-0024, 0026-0035]).

20. Regarding claim 10, Yoshiki in view of Tomarchio further show a suspended service recovery apparatus according to claim 8, further comprising: a memory unit configured to memorize a recovery table which correlates each item of the state-description data with a data type that can be processed on the second terminal; and a state-description transformer configured to transform the state-description data retrieved from the storing unit to recovery-state data, which is utilized to recover the suspended service, based on the recovery table (Tomarchio Sections 3.2 and 3.3; Yoshiki [0016-0024, 0026-0035]).

21. Regarding claim 11, Yoshiki in view of Tomarchio further show a computer program product to be executed by a computer for receiving a service non-continuously via a network from a service-providing apparatus deployed on the network using a first terminal and a second terminal, comprising the steps of:

(1) analyzing a suspend-state if the service being provided to the first terminal via the network is suspended, and extracting required data in order to recover the suspend-state (Yoshiki [0017-0019,0024]);

(2) converting the required data extracted at a step (1) to state-description data according to a prescribed format (Yoshiki [0026-0029,0037]; Tomarchio Sections 1, 3.2, 3.3);

(3) storing the state-description data (Yoshiki [0016-0019]);

(4) transforming the retrieved state-description data to recovery-state data based on a recovery table which correlates each item of the state-description data with a data type that can be processed on the second terminal (Yoshiki [0016-0019]; Tomarchio Sections 1, 3.2, 3.3); and

(5) recovering the suspended service on the second terminal based on the recovery-state data (Yoshiki [0017-0019, 0024]).

22. Regarding claim 12, it is inherent that the state-description data is described in a text format using characters or symbols, as there is no other method for storing data that is interpreted/utilized by computers.

23. Regarding claim 13, Yoshiki in view of Tomarchio further show wherein at a step (4), hardware or software resource executable in the second terminal is selected based on the recovery table (Yoshiki [0017-0019,0024]; Tomarchio Sections 3 and 4).

24. Regarding claim 14, Yoshiki in view of Tomarchio further show wherein at a step (1) or a step (2), if the first terminal receives the service using a plurality of resources configured by hardware or software, the required data is separated for the respective resources (Yoshiki [0026-0028]).

25. Regarding claim 15, Yoshiki in view of Tomarchio further show wherein at a step (4), the plurality of the state-description data is merged and the merged state-description data is transformed to the recovery-state data (Yoshiki [0026-0028]), and

at a step (5), the service is recovered simultaneously using a plurality of resources configured by hardware or software (Yoshiki [0017-0026], Tomarchio Sections 3.1, 3.2 and Figs 2 - 4).

Art Unit: 2142

26. Claims 1 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP laid-open H9-154108 in view of 2001 Communications Society Conference of IEICE for the reasons given in the provided Japanese Notification of Reason for Refusal.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Frink whose telephone number is (571) 272-9686. The examiner can normally be reached on M-F 7:30AM - 5:00PM EST; off alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571)272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/652,075

Page 12

Art Unit: 2142

John Frink

(571) 272-9686

A handwritten signature in black ink, appearing to read "Andrew Caldwell". The signature is fluid and cursive, with a large, stylized "A" and "C".

ANDREW CALDWELL  
SUPERVISORY PATENT EXAMINER